

Mr. WHITE said it was impossible to treat the tides dynamically. The best mathematicians had tackled the subject, but it was still said that the dynamical theory was a disgrace to science. The tides at the Port Phillip Heads differed from the Admiralty tables by four hours.

Mr. ELLERY said that Mr. Wakelin in all his papers started a speculation, but went no further.

Dr. WILD noticed that Mr. Wakelin stated that he had a difficulty in obtaining books to consult. That partly accounted for his inability to conceive how the small moon could raise the waters of the ocean against the attraction of the earth.

After a few more remarks the discussion terminated.

## REPORT OF THE PORT PHILLIP BIOLOGICAL SURVEY COMMITTEE,

*Presented and read on 15th December, 1887.*

W. M. BALE, F.R.M.S.		P. H. MCGILLIVRAY, M.R.C.S.
REV. A. W. CRESSWELL, M.A.		W. BALDWIN SPENCER, B.A.
A. H. S. LUCAS, M.A., B.Sc.		C. A. TOPP, M.A., F.L.S.
J. BRACEBRIDGE WILSON, M.A.		

## REPORT OF THE COMMITTEE APPOINTED BY THE ROYAL SOCIETY OF VICTORIA TO INITIATE A BIOLOGICAL SURVEY OF PORT PHILLIP.

Your Committee have held four meetings, on July 30, August 19, September 30, and November 28.

At the first meeting, all the members being present except Mr. Bale, whose duties detained him, the objects to be aimed at by the Committee were more precisely defined. It was resolved: I. That a catalogue of the existing literature relating to the fauna and flora of Port Phillip be compiled, and that annual additions should be made of such similar publications as shall appear in each succeeding year. It was decided that by Port Phillip should be indicated the salt waters inside of a straight line joining Point Lonsdale to Point Nepean. That the

systematic survey should be limited to Port Phillip as thus defined, but that any results of scientific value which can be obtained in other Victorian seas should be, as far as possible, recorded. The work of compilation of existing books and papers bearing on the living forms of Port Phillip, &c., was divided amongst the Members of the Committee.

II. That Port Phillip be divided into a number of littoral and marine stations to be determined from the charts, and that the stations be numbered, and the life-forms of each explored under the direction of the Committee.

III. That a base catalogue of the plants and animals found living in Port Phillip should be prepared, each species to have appended to it the numbers of all the stations from which it is recorded.

IV. That an extended catalogue of the plants and animals should also be prepared, and that under the heading of each species all particulars observed concerning its life, history, associations, and commercial value, be inserted.

V. That the specimens obtained should be submitted for identification to competent scientists, in order to secure as far as possible absolute accuracy in the published records.

VI. That the Committee shall arrange, as opportunity arises, for the investigation of such biological questions as may be suggested by the material acquired.

VII. That the Committee shall, from time to time, furnish the Royal Society with reports of the results of their work.

Your Committee decided to ask the Council for a grant of £50, in aid of their researches, and acknowledge with gratitude the generous spirit in which their request was granted.

Mr. A. H. S. Lucas was appointed Honorary Secretary and Treasurer of the Committee.

It was decided that, *pro tempore*, the specimens obtained should be kept at the University, under the care of Professor Spencer and the Hon. Secretary.

A large order for spirit and for jars, bottles, and preservative re-agents, was given to Messrs. Felton, Grimwade and Co., and the Committee have to acknowledge the kindness of Mr. E. Bage, a Member of the Council, in aiding them greatly in their selection.

A first list of thirty-two stations was carefully drawn up by the Committee, the outer ones in accordance with the extensive previous experience of Mr. Bracebridge Wilson.

Three dredging excursions have already been made to the inner stations, viz., to Hobson's Bay, Laverton Bay, and Brighton, and some shore work has also been done by the members. Arrangements have been made for an early visit to Geelong, and the outer stations of the Bay will receive attention during the summer

months. Mr. Wilson has been having his yacht repaired, and will continue his work in this field in the ensuing vacation.

A large number of animal specimens have been obtained, and will be exhibited at the general *Conversazione*. Great care has been exercised in preserving them in such a condition that they shall be fit for histological as well as for zoological examination. Several interesting lunicates, annelids, and alcyonarians have been taken. Mr. Wilson has recorded *Amphioxus* from the South Channel, and Mr. Lucas is engaged on a careful comparison of this indigenous specimen with the European form. *Trigonia* has been found in Laverton Bay.

Some of the number of our active workers took part in the King's Island Expedition of the Field Naturalists' Club. This to a certain extent deferred work in the Bay.

Your Committee have much pleasure in announcing that records of the work done previously on the sponges by Mr. Wilson will pass through their hands, Mr. Wilson having forwarded to the University Biological School, through your Committee, the whole of his fine and well-preserved collection.

The Committee is in communication with several eminent specialists in England and in the colonies, in order to secure their services in the identification of species.

In reviewing the work done, the Committee would point out that the preliminary arrangement of necessity involved much care and time, but they trust that the lines on which the survey has been inaugurated are broad and scientific, and that the results obtained will, in consequence, be easily classified, and of more than local value. It is, of course, during the summer vacation that most of the members of your Committee are more free from professional engagements, and we hope to be able to devote much more time accordingly to the survey, with which the Royal Society have entrusted us.

Signed on behalf of the Committee,

A. H. S. LUCAS,

29th November, 1887.

*Hon. Sec.*

---

The collections of specimens of Sponges dredged in the inner waters of Port Phillip, by Mr. J. Bracebridge Wilson, M.A.; of Victorian Forms of Sponge Skeletons, and of Victorian Crustacea and Echinodermata, by Mr. A. H. S. Lucas, M.A., B.Sc., formed a prominent and interesting portion (No. 21 in list) of the objects exhibited in the large hall of the Athenæum at the *Conversazione* on the 9th December.